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ABSTRACT

Designed to aid in curriculum and facilities planning at Montgomery College (MC), this report provides projections of student enrollments for 1984 through 1988. After introducing the history of enrollment projection at MC and presenting a rationale for such efforts, chapter 1 outlines the framework for projecting enrollments using techniques of curve fitting (i.e., estimating numbers on the basis of the past trends) and estimation of yields from different components of the population. The chapter concludes by comparing the two methods and applying them to enrollments at MC. Chapter 2 presents enrollment projections for five groups as segments of the total college population: (1) high school graduates, including immediate and delayed entry students, early placement students, and private and parochial school students; (2) returning students; (3) new, older county residents within Montgomery County; (4) out-of-county and out-of-state residents; and (5) off-campus and extension credit students. After chapter 3 summarizes actual and projected enrollments by segments, chapter 4 provides credit enrollment projections by campus, semester, and day/evening attendance. Chapters 5 and 6 present estimates for full- and part-time students and for non-credit enrollments. Finally, chapter 7 summarizes actual and projected figures for credit and non-credit students combined. (HB)

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FIVE-YEAR ENROLLMENT PROJECTIONS

FISCAL YEARS 1984 - 1988

(A supplement for the FY 1984 Capital
and Operating Budgets of
Montgomery Community College)

MONTGOMERY COLLEGE

Montgomery County, Maryland

November 1982

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CHAPTER I

INTRODUCTION AND FRAMEWORK

A. Introduction

With more than two hundred thousand former students and graduates, and many more thousands of students currently enrolled in credit and non-credit courses, Montgomery College has become a major public institution of higher education in what is perhaps the most educationally conscious county in the United States. The College has established an outstanding record of education for the citizens of the County. Students at the College range from teenagers who are still in high school and participate in early placement programs, to senior adults who are pursuing their particular interests in higher education. The educational opportunities available at the College are flexible and designed to meet the varied needs of both the individual and the community. These opportunities range from preparation for transfer to a baccalaureate college for advanced degrees to the development of skills for immediate employment, for the upgrading of current skills and for the fulfillment of other personal goals that contribute to making life more stimulating and productive.

To meet these needs, the College is continually evolving and developing, considering what new elements to introduce and what existing ones to modify or discontinue. New courses and curricula are introduced to meet changing educational needs, and existing courses and curricula are revised or deleted to reflect current requirements. To support its planning for curricula and facilities, the College requires an effective process for projecting enrollment a number of years into the future.

In 1974, Montgomery College developed and implemented a statistical enrollment projection model. This model provided single figure best estimates of predicted enrollments for each of a number of enrollment segments (campuses, semesters, etc.) for a ten year period. Since 1974, the model has been refined and modified as need has arisen. This single figure enrollment estimate model was a useful planning tool for the College during a period of growth and expansion. In recent years, however, enrollment growth has slowed, resources have become tighter, and as a result, a necessity for more controlled staffing and budgeting has emerged. These changes suggested the need for reevaluation of the enrollment projection methodology to allow the College to plan for possible ranges of enrollment. Enrollment planning must provide answers to questions such as these: What is the lowest enrollment that the College might reasonably expect in a given year? What is the highest? What is the best estimate of potential enrollment? What are the assumptions that must be met to achieve these base, middle and high estimates?

Everyone knows that it is impossible to predict the future with complete certainty. In the years of enrollment growth, if the College

achieved an enrollment that was three or four percent over or under projections, the effects were not severe, since there was always some growth to support the College's budget. At the current time, however, when enrollment growth is less certain and resources are not as readily available, the effects of enrollment shortfalls or overages can be devastating, especially if they have not been considered in planning and budgeting.

The Office of Institutional Research, beginning with the fiscal year 1980 projections, developed projections which provide ranges of possible enrollments rather than single projection figures. This approach has proved to be more practical than the approach which had been used by the College previously. Like the projection series developed previously, this fiscal year's projection series are reviewed by appropriate College personnel, including the President, the Academic Vice President and the Campus Provosts. A decision is reached by these individuals and the Office of Institutional Research staff concerning the projection series which is most appropriate for use in planning the College's future. A high projection series was arrived at through this process and is presented here. As evidenced in the last three fiscal years, the College's actual enrollment has exceeded the middle series projections for these fiscal years. In addition, the Reagan administration's budget cuts approved for the next several fiscal years, will reduce the amount of federally insured loans and other financial aid to university and college students throughout the nation. This economic plan should have a positive impact on student enrollment at the College. Additionally, although there are no current plans for a summer session at the Germantown Campus, the Rockville and Takoma Park campuses will expand to two summer sessions beginning in fiscal year 1984. Having considered these factors, the College's Administration has determined that student enrollment at the College should follow the high series projection. It has been projected that college student enrollment in fiscal year 1984 (not including the additional summer session) will exceed actual enrollment in fiscal year 1983 by 6.2 percent.

B. The Framework for Projecting Enrollment

We have selected the term "framework" rather than "model" to describe our enrollment projection approach because several independent methods have been considered, and components of each of these were incorporated into our forecast. We wish to stress that this framework should be viewed as part of a decision making and planning process. Output of the projection framework is based on assumptions which must be met in order that projected levels of enrollment can be attained. Since the output of the framework include a band of enrollment projections for a series of five years rather than a single estimate for each year, College officials have been able to discuss the reasonableness of the set of assumptions associated with each of the projection series and to determine the resources and activities necessary to realize the assumptions deemed most appropriate.

There are two principal projection techniques which are applied within the framework: a mathematical technique (curve fitting) and a statistical technique (yield from population components). Each of these techniques will be discussed in detail in the remainder of this section.

Method I - Curve Fitting

The theoretical assumption underlying projection by curve fitting is that enrollment growth during a specified period can be described by some type of mathematical function and that enrollment growth will continue in the future to follow the path it has followed in the past. We have evaluated three separate types of curves, one of them linear and two of them nonlinear, for effectiveness in describing the growth of headcount enrollment at Montgomery College. These curves, including the one deemed most appropriate, will be discussed more fully below.

Method II - Yield from Population Components

The Montgomery College student body is made up of components which have varying degrees of importance for the total enrollment. These components fall into three main categories--residents of Montgomery County, residents of other Maryland counties, and non-residents of Maryland. The first category, residents of Montgomery County, is by far the largest contributor for the total enrollment at the College, and is itself segmented according to new entrants who are recent high school graduates of Montgomery County schools, returning students from previous semesters, and new entrants who are older Montgomery County residents. The College has historical and projected data available concerning the size of the populations from which all of the components are drawn and trend data for yield rates for enrollment at the College from these population segments. Projections for each component can be made by applying projected yield coefficients to projected population statistics. Overall enrollment for a given year is then projected as the sum of the components for that year.

Comparison of two Projection Methods

The relationship between these two projection types deserves some consideration. Curve fitting of the type we have described above has time as the independent variable and is based upon the assumption that the curve which has most closely approximated growth in the past will be that which most closely approximates growth in the future. It should be apparent that this is not always a good assumption, since it fails to consider such information as unusual growth patterns in certain elements of the population. The components method, on the other hand, allows us to avoid the use of time as an independent variable and to use, instead, independently projected values of population components and yield rates. The reliability of the projection series is then greatly increased because it takes into account population characteristics and their changes. It also is improved because it is based upon several independent variables whose probable errors may be expected to cancel each other out to some extent.

Given that the components method is the more reliable and defensible of the two approaches, why bother to include the curve fitting method as part of the framework? The curve fitting method is used as a means of validation of the projections obtained through the components method. Should a substantial discrepancy be found in the projections obtained through these two methods, it can be taken as indicating a need for additional close examination of the assumptions upon which the components method is based.

C. Application of the Framework

Trends in Montgomery College Headcount Enrollment Since 1955 and Curve Fitting

Headcount enrollment by year at Montgomery College is displayed in Figure A. Although a straight line can be reliably fitted to these data (r=.989), it is clear from observation that the data exhibit a significant deviation from linearity. Another type of curve that can be fitted to the data is an exponential curve, which also yields a highly reliable fit (r=.998). However, such a curve yields unreasonable projections of enrollment in the long run (e.g., 100,000 students in 1988).

Further examination of the enrollment distribution reveals a slowdown in enrollment growth starting in 1974 or 1975. The form of the curve which this pattern suggests is logistic or "S" shaped. Until this year a fitted logistic curve approaching an upper limit of 23,500 students in 1990 has yielded an almost perfect fit (r=.998) to the data (Figure B). The selection of 23,500 as a theoretical upper limit for Montgomery College headcount enrollments is based upon projection considerations of maximum utilization of current and projected College facilities. However, as seen in Figure B, the actual enrollments the past two years have begun to depart from predicted enrollments based on this current logistic model, and consequently, modifications of this mathematical model will need to be considered in order to enhance its potential as an accurate predictor of future enrollments.

Projections from Population Components

This aspect of the enrollment projection framework is based upon adaptation of the previous Montgomery College enrollment projection model. This allows for the calculation of enrollment ranges. The actual method of projection involves combining for each segment of the student body: (1) external information on the size of that segment; with (2) past Montgomery College experience with that segment. This historical information is then tempered with consideration of reasonable expectations for the future. It is these expectations or assumptions about the future that are varied to derive the possible ranges of enrollment.

The segments of total enrollment that are projected separately and the sources of external data for each segment are listed on the next narrative page.

FIGURE A

ACTUAL ENROLLMENT 1955-1982

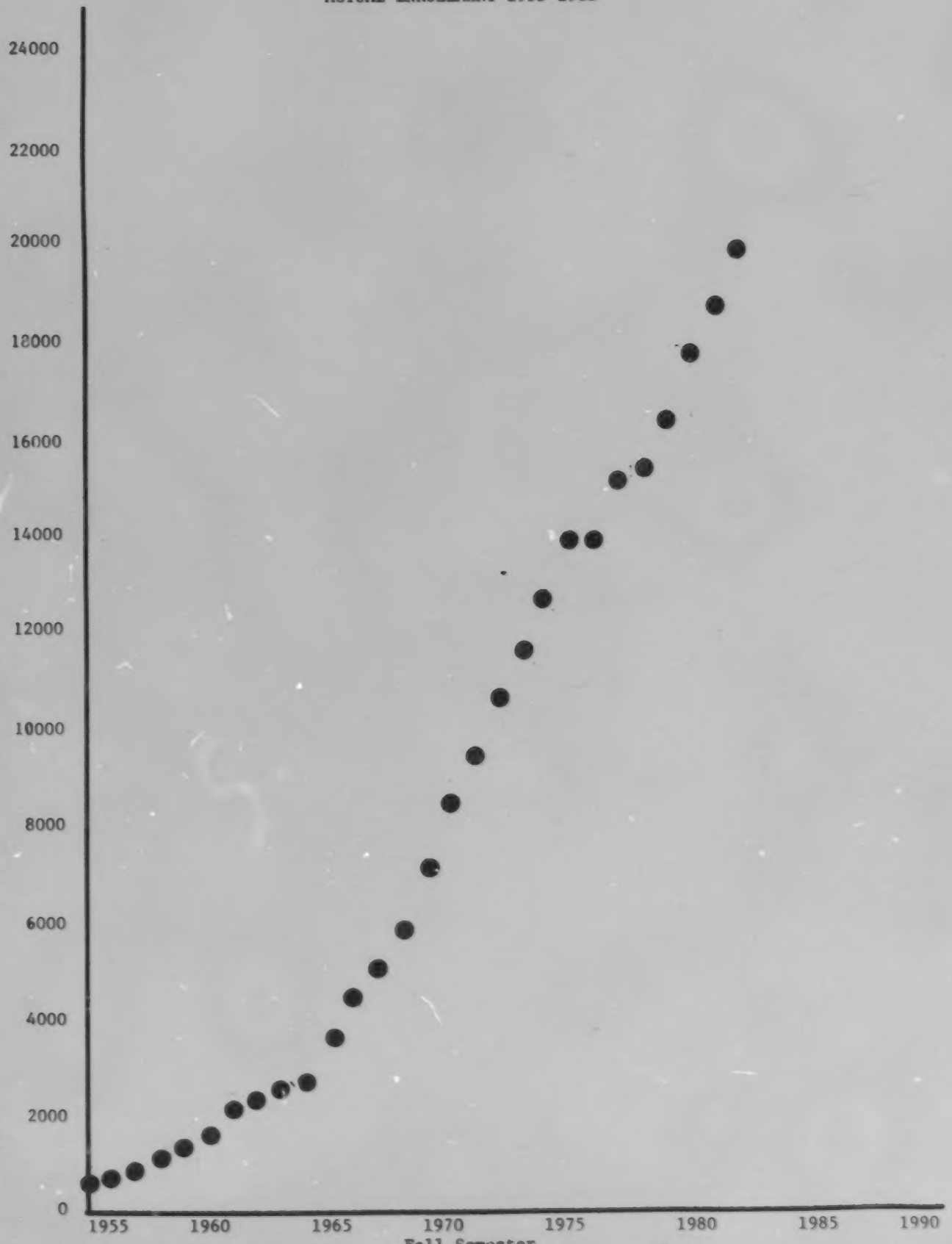
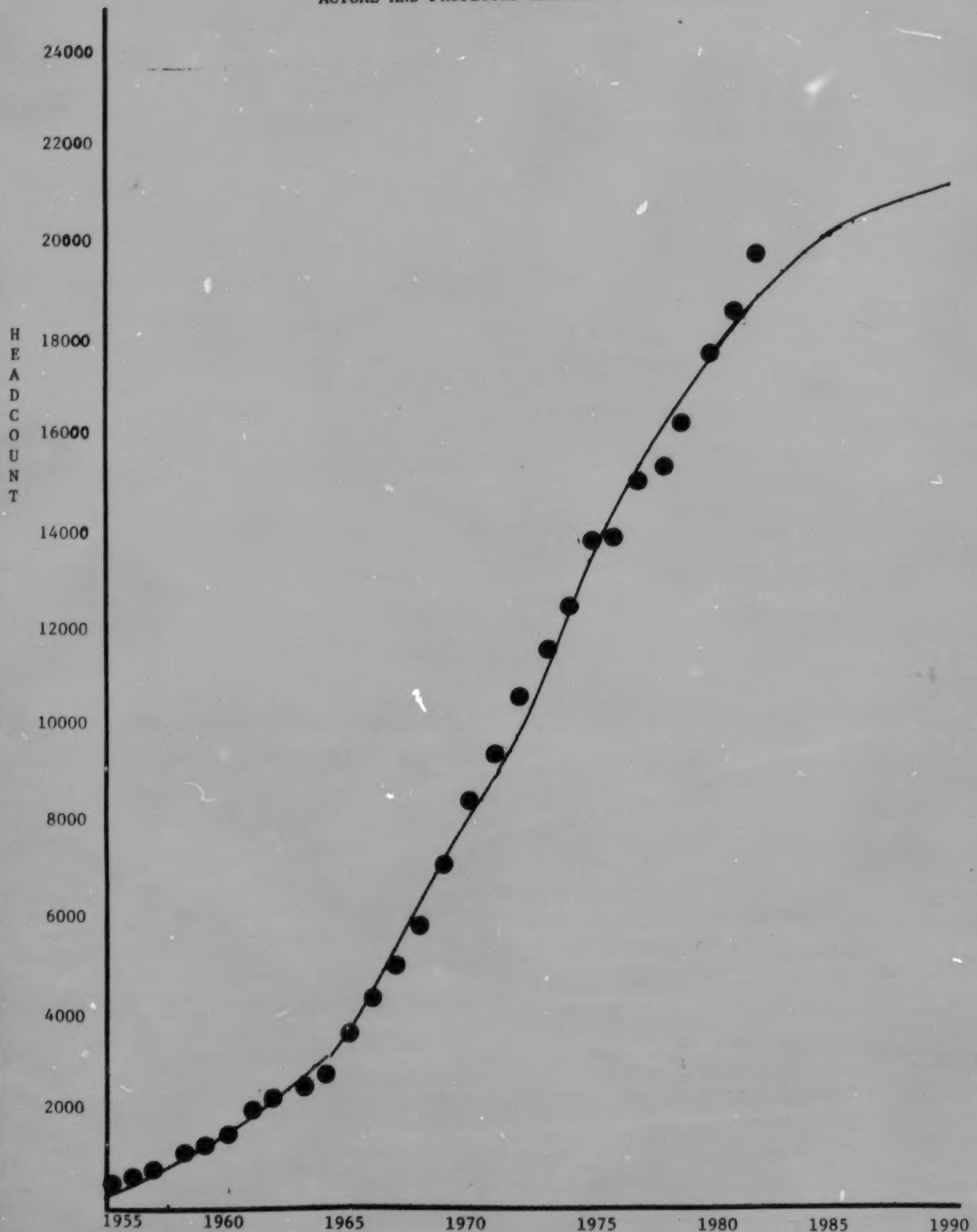


FIGURE B

ACTUAL AND PROJECTED ENROLLMENT 1955 - 1990



Segment	Data Source
1. Montgomery County residents High school graduates, delayed entry students, and early placement students	Montgomery County Public Schools, Division of Planning, projections of enrollment in twelfth grade in Montgomery County Public Schools.
Returning students from past semesters and re-enrollees	Past retention rates of returning students from past semesters and re-enrollees.
Adult County residents who are new entrants including post graduates, those over 60 years old, and transfer students	Montgomery County Planning Board projection of population between 20 and 55 years of age; the College's past enrollment rate of transfer students, post-graduates, and those over 60 years of age.
2. Maryland residents outside of Montgomery County	Maryland Department of State Planning projection of enrollment in twelfth grade in neighboring counties.
3. Non-residents of Maryland	Related to the size of the College and the extensiveness of its programs.
4. Off-Campus credit enrollments	Past history and current program development efforts.

The following sections of this report present the offical College enrollment projection, representing the "high" series of the projected range. In addition, methods of projecting credit hours and distributing enrollments by campus, i.e., where students take most of their courses, will be discussed in later sections.

Assumptions of the High Projection Series

The following assumptions were used to formulate the College's high projection series:

1. Approximately twenty-one percent of the MCPS graduates will enter Montgomery College immediately after graduation.

2. An increase of .11 percent in the percentage of older Montgomery County adults enrolling at the College is projected for next fall. Then, the rate of enrollment in this category will stabilize.

3. Approximately 57 percent of the students from the prior fall semester enroll in the subsequent fall semester. This rate, which includes re-enrolled students, is approximately 3 percent above the current rate.

4. An increase of 1.0 percent is projected for the percentage of other Maryland residents in fall 1983 and more moderate increases are projected for the next three years, followed by a slight decline for the remaining year.

5. A .5 percent increase in the percentage of out-of-state students is projected for fall 1983. After that, enrollment in this component will stabilize.

6. Off-campus credit enrollment will increase by 13.2 percent in fall 1983 and the growth will continue at more moderate rates in subsequent years (6 to 7%). This growth results from the College's efforts to expand its off-campus programs, especially to business.

7. Total summer enrollment will increase 6.2 percent in 1983. A second summer session in fiscal year 1984 beginning in May, 1984 at the Rockville and Takoma Park campuses will generate additional summer school enrollments for the College. Enrollment in the traditional summer sessions will continue to grow in subsequent years, but at a more moderate rate of 2 to 4 percent.

CHAPTER II

COMPONENTS OF ENROLLMENT

A. Residents of Montgomery County

Part I: High School Graduates as a Segment of the Total College Enrollment

In order to project enrollment by student source segments, it is necessary to identify and evaluate several separate categories within each segment. The analysis of components is for on-campus students only, except where the report indicates otherwise. In the high school segment of the enrollment projection model, each category depends in one way or another on the number of graduates from the high schools in Montgomery County. The principal categories considered are: (1) those students entering Montgomery College immediately after graduation from a public high school, excluding those 1982 MCPS graduates who participated in prior years in early placement programs, and who are included in the returning student category; (2) those students who enter the College after some years of employment, military service, travel, etc.; (3) those private and parochial high school graduates entering the College; and (4) early placement students--those who enroll at the College while still in high school. A change in the number of students in any one of these categories has a direct effect on the size of the segment and is reflected in the total enrollment of the College.

Immediate Entry Into College

Projections of twelfth grade enrollments in Montgomery County public schools are shown in Table II-1. The College's model used regional breakdowns derived from the projections for individual high schools aggregated within the three regions shown on the College's map of the Montgomery County high schools (Figure C). The boundaries among the three regions are determined by the College's enrollment rates from the public high schools, and may be thought of as roughly corresponding to the service areas of the three campuses. The composite enrollment rate for each region is used in the College enrollment projection model.

Table II-1 gives an indication of the expected decline in twelfth grade enrollments within Montgomery County from fiscal 1983 to fiscal 1985. This decline however, is expected to bottom out in fiscal 1985 followed by slight enrollment increases in subsequent years. The graph in Figure D portrays the shift in the distribution of these students from region to region which can be expected to occur over the next five years.

Apparently, the trend of fewer young people entering college immediately out of high school in past years has been reversed. According to the Montgomery County public school follow-up studies of graduates, the lowest rate in the last decade was reached in 1973 when only 67.7 percent of the graduates intended to enter college immediately after graduation. Since then, the percentage of graduates intending to enroll in college after graduation has increased each year to 78.7% in 1980 (Table II-2).

TABLE II-1

MONTGOMERY COUNTY PUBLIC SCHOOLS
PROJECTED 12TH GRADE ENROLLMENT BY REGION
1983 THROUGH 1987

MONTGOMERY COLLEGE ENROLLMENT REGIONS	NUMBER OF HIGH SCHOOLS	1982 1983	1983 1984	1984 1985	1985 1986	1986 1987
Upper County	4	1330	1265	1330	1360	1391
Middle County	9	3382	3195	3057	3061	3065
Lower County	9	3153	2899	2718	2765	2813
TOTAL	22	7865	7359	7105	7186	7269

Source: Division of Planning, Montgomery County Public Schools

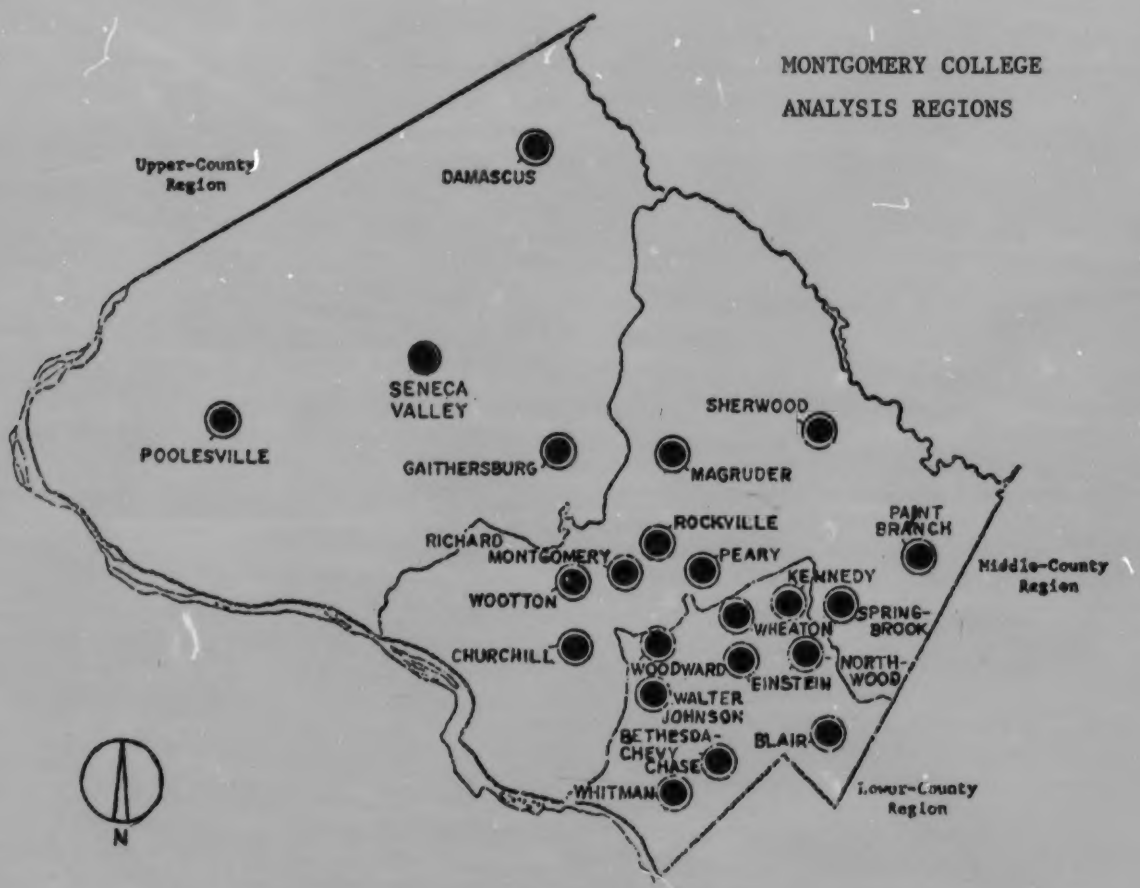


FIGURE C

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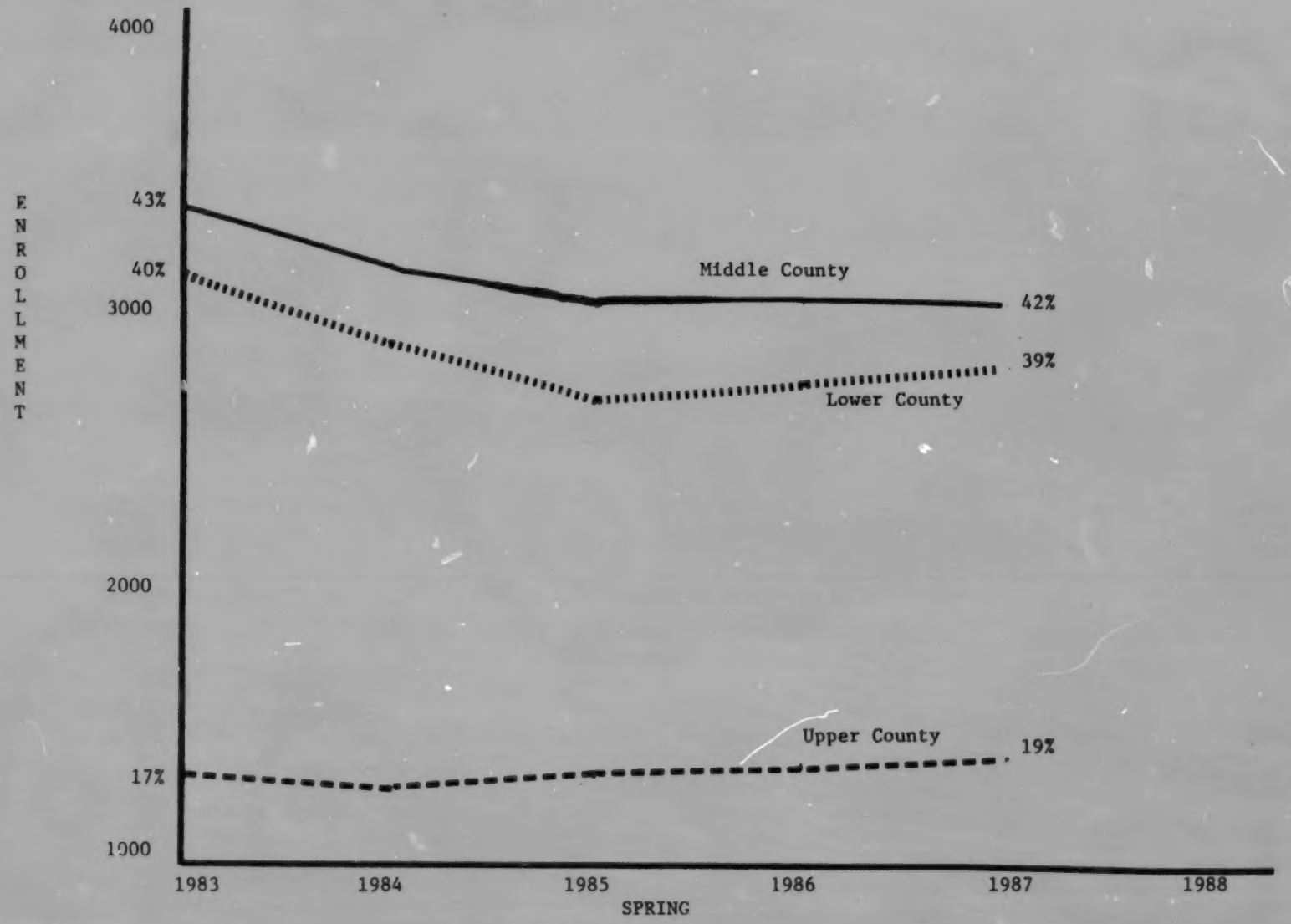
FIGURE D

PROJECTED 12TH GRADE ENROLLMENT 1983-1987
(Montgomery County Public Schools)



As seen in Table II-3 the proportion of the students who enter Montgomery College immediately after high school has been relatively stable in recent years, ranging from 18 to 21 percent of all the Montgomery County public high school graduates of the previous spring. It is expected that this enrollment rate will stabilize at a rate of approximately 21 percent during the next five years.

TABLE II-2

COUNTY COMMUNITY COLLEGE AND STATE UNIVERSITY ATTENDANCE PATTERNS OF MONTGOMERY COUNTY PUBLIC HIGH SCHOOL GRADUATES*
1973 - 1980
(MCPS GRADUATE SURVEY)

DATE OF HIGH SCHOOL GRADUATION	TOTAL NO. OF GRADS	NO. CONTINUING THEIR EDUCATION	NO. ATTENDING MONT. COLLEGE	NO. ATTENDING U. OF MARYLAND
1973	9221	6241	1973	1312
	100%	67.7%	21.4%	14.2%
1974	9402	6599	1870	1545
	100%	70.2%	19.9%	16.4%
1975	9395	6909	2008	1701
	100%	73.5%	21.4%	18.1%
1976	9616	7049	2023	1688
	100%	73.3%	21.0%	17.6%
1977	9603	7159	1941	1831
	100%	74.5%	20.2%	19.1%
1978	9447	7076	1942	1650
	100%	74.9%	20.6%	17.5%
1979	9134	6895	1904	1582
	100%	75.5%	20.8%	17.3%
1980	9142	7199	2023	1571
	100%	78.7%	22.1%	17.2%

Source: Department of Educational Accountability, Montgomery County Public Schools

*As these data are based on the findings of annual follow-up studies they do not agree with official third-week enrollment statistics of the College. The discrepancy results from the fact that the survey is conducted some months before the fall college semester is to begin, and some students apparently change their minds during the intervening months.

TABLE II-3

ACTUAL AND PROJECTED MCPS GRADUATES
ENTERING MONTGOMERY COLLEGE
IMMEDIATELY AFTER HIGH SCHOOL GRADUATION

	MCPS GRADUATES	MCPS HIGH SCHOOL GRADUATES ENTERING MONTGOMERY COLLEGE IMMEDIATELY AFTER GRADUATION	PERCENT OF HIGH SCHOOL GRADUATES ENTERING MC
		ACTUAL+	
1973	9221	1816	20%
1974	9402	1670	18%
1975	9395	1808	19%
1976	9616	1757	18%
1977	9603	1850	19%
1978	9447	1725	18%
1979	9134	1768	19%
1980	8767	1860	21%
1981	8762	1703	19%
1982	8715	1738	20%
		PROJECTED	
1983	7865	1651	21%
1984	7359	1545	21%
1985	7105	1492	21%
1986	7186	1509	21%
1987	7269	1526	21%

+Official third week fall enrollment figures.

Delayed Entry

The students who delay their entry into higher education for one to three years represent the second largest component of the high school source segment. The portion of a high school graduating class which enrolls after a given time interval increases relatively consistently over the recent past, permitting an estimation of yield per year from a given class (Table II-4). Thus, in projecting the contribution to the total College enrollment, it has been possible to build into the model an allowance for this category of student.

TABLE II-4

DELAY BETWEEN HIGH SCHOOL GRADUATION AND COMMUNITY COLLEGE ENTRANCE OF MONTGOMERY COUNTY HIGH SCHOOL GRADUATES

YEAR OF GRADUATION FROM HIGH SCHOOL	DIRECT ENROLLMENT AT MONTGOMERY COLLEGE SAME YEAR (FALL SEM.)	DELAYED ENROLLMENT 1 YR.	2 YRS.	3 YRS.	TOTAL TO DATE (FALL 1980)
1982	1738 (19.9%)				1738 (19.9%)
1981	1703 (19.4%)	307 (3.6%)			2010 (22.9%)
1980	1860 (21.2%)	350 (4.0%)	117 (1.3%)		2327 (26.5%)
1979	1768 (19.4%)	476 (5.2%)	152 (1.7%)	75 (.8%)	2471 (27.1%)

Private and Parochial Schools

While the number of graduates from the private and parochial schools within Montgomery County has been quite stable, the proportion which enrolls at Montgomery College has varied somewhat in the past seven years. As Table II-5 indicates, this proportion has averaged approximately nine percent during the years 1975 through 1981 with a high of 10 percent reached in fall 1980. However, the enrollment of private and parochial school graduates in the College dropped to a low point of seven percent this fall.

TABLE II-5

PERCENTAGES OF PRIVATE AND PAROCHIAL HIGH SCHOOL GRADUATES

ENROLLING AT MONTGOMERY COLLEGE

	1975	1976	1977	1978	1979	1980	1981	1982
Private Schools	3%	3%	4%	6%	5%	6%	7%	4%
Parochial Schools	11%	12%	9%	10%	12%	13%	11%	10%
TOTAL	8%	9%	7%	8%	9%	10%	9%	7%

Early Placement Students

Montgomery College and the public high schools of the County have jointly established an early placement program in college work for selected high school students who have completed their junior year. To be eligible, a high school student must have accumulated at least 14 Carnegie units in major subjects, have an overall "B" average, and have the recommendation of his or her high school principal and guidance counselor.

The number of high school seniors participating in the early placement program is shown in Table II-6. This number averaged about 100 and was relatively stable for the fall semesters between 1976 and 1978. Since then however, the number of participants in the program has varied widely from a high of 154 in fall 1979 to a low of 58 in fall 1981. An increase was recorded in the fall 1982 semester.

TABLE II-6

EARLY PLACEMENT ENROLLMENT OF COUNTY

HIGH SCHOOL SENIORS AT MONTGOMERY COLLEGE

	HIGH SCHOOL SENIORS PARTICIPATING IN EARLY PLACEMENT PROGRAM
Fall 1976	100
Fall 1977	110
Fall 1978	107
Fall 1979	154
Fall 1980	89
Fall 1981	58
Fall 1982	77

Summary

The combination of all the categories: (1) immediate enrollment; (2) delayed enrollment; (3) private and parochial school graduations; and (4) early placement students, is embodied in the high school graduate source segment of the enrollment projections. Table II-7 shows the actual and projected sum of the four categories of students entering Montgomery College from the high school segment. The loss of students due to the declining population of high school graduates seemed to be offset to some degree by the increasing tendency of other aspects of the high school component to increase during the past several years. However, in fall 1981 the College experienced a loss of 15.1 percent enrollment from this combined high school component. The combined high school component of the College enrollment showed a small loss in fall 1982 which is expected to be recaptured in 1983. However, moderate declines in this enrollment are forecasted for fall 1984 and fall 1985 before leveling off the subsequent years.

TABLE II-7

ACTUAL AND PROJECTED MONTGOMERY
COUNTY HIGH SCHOOL STUDENTS (ALL CATEGORIES)
ENROLLING FOR FIRST TIME AT MONTGOMERY COLLEGE

FALL	STUDENTS	PERCENT CHANGE FROM PREVIOUS YEAR
	A C T U A L	
1974	2361	- 7.4%
1975	2500	+ 5.9%
1976	2568	+ 2.7%
1977	2666	+ 3.8%
1978	2665	-
1979	2845	+ 6.8%
1980	2872	+ .9%
1981	2437	-15.1%
1982	2413	- 1.0%
	P R O J E C T E D	
1983	2437	+ 1.0%
1984	2281	- 6.4%
1985	2203	- 3.4%
1986	2228	+ 1.1%
1987	2235	+ .3%

Part II: Returning Students as a Segment of the Total College Enrollment

The segment of the total College enrollment which consists of students continuing from the previous year is dependent upon the retention rate including the number of re-enrollees from previous years. Students tend to take longer than two years to complete their programs. For example, 9 percent of the students who entered Montgomery College in the fall of 1970 were still enrolled during the fall of 1973, while 11 percent of the students who enrolled in the fall of 1971 were still enrolled during the fall of 1974, and over 10 percent of the students who entered in fall 1972 were still attending the College in the fall of 1975. The current retention rate from spring to fall is approximately 54 percent but is expected to increase to 57 percent during the next five years. This projected increase is due in part to expected continued high levels of unemployment, since remaining in school provides an attractive alternative to a highly competitive job market for many students. It also is due to the lack of financial aid funds and rising tuition at four-year institutions.

TABLE II-8

ACTUAL & PROJECTED RETURNING STUDENTS
ENROLLING AT MONTGOMERY COLLEGE

FALL	RETURNING STUDENTS	PERCENTAGE CHANGE FROM PREVIOUS YEAR
	A C T U A L	
1976	7259	- 4.4%
1977	7350	+ 1.3%
1978	7392	+ .6%
1979	7773	+ 5.2%
1980	8313	+ 6.9%
1981	9236	+11.1%
1982	10296	+11.5%
	P R O J E C T E D	
1983	11274	+ 9.5%
1984	12025	+ 6.7%
1985	12588	+ 4.7%
1986	12981	+ 3.1%
1987	13258	+ 2.1%

Part III: New Older County Residents as a Segment of the Total College Enrollment

Students who are older than traditional college age, and who feel that they can benefit from the programs of the College may be admitted to college courses. Individuals who have graduated from Montgomery College and those who have graduated or are attending other colleges or universities also may enroll as students when they feel they can benefit from courses at this College. Some of these students initially come in contact with the College through enrollment in extension credit courses offered near their homes. Eventually, these same students may enroll on campus to benefit from the full range of courses and services available on campus as compared to those available at extension centers.

The number of students in this category has increased rapidly at Montgomery College. As presented in Table II-9 there was a 73 percent increase in older students enrolled in the fall semester of 1981 as compared to the fall of 1976. This enrollment pattern is the result of many factors - citizens returning to college in order to complete their education; those beginning their college career but at a cautious pace; as well as those individuals attending for selfimprovement, preparation in a special job-related skill, or job upgrading, to name a few reasons for attendance.

The most reliable reference point for predicting the number of students in this segment has proved to be total county population in the 20-55 year old age group. The latest available population projections for Montgomery County that were developed by the County Planning Board (released in Sept. 1982), show the expected population in 1984 to be 585,400 while the 1973 County Planning Board projection extended to 1984 was 763,730. In effect, the comparison of these two sets of projections imply that there will be approximately 178,000 fewer people living in the County in 1984 than was projected in 1973 (Figure E). The 1980 U.S. Census indicates that 579,053 people resided in the County that year.

There are two forces working in opposite directions which are affecting enrollment in this segment. More citizens are taking advantage of the educational programs of the College. At the same time, the total number of persons expected to live in the County has been reduced considerably from previous projections, thus reducing the size of the projected potential pool of prospective students over the next five years.

The projections are based on the assumption that the rate at which older students enroll will continue to increase over the next five years. This rate increase will tend to offset the reduced growth rate which would otherwise result from the new and lower population projections made by the County Planning Board.

Rather than the rapid enrollment growth of the mid-seventies continuing, a more moderate increase slightly greater than the growth rate of the county population is foreseen as reasonable for the next five years. This growth is dependent on continuation of the proven determination of Montgomery College in developing programs and

services to meet community educational needs. Further, the redevelopment of the Takoma Park Campus and the opening of the new Germantown Campus are making educational opportunities available to entirely new segments of County citizens (Table II-9).

TABLE II-9

ACTUAL & PROJECTED OLDER COUNTY RESIDENTS
ENROLLING FOR THE FIRST TIME AT MONTGOMERY COLLEGE

FALL	OLDER COUNTY RESIDENT STUDENTS	PERCENTAGE CHANGE FROM PREVIOUS YEAR
	ACTUAL	
1976	2323	+17.6%
1977	3073	+32.3%
1978	2983	- 2.9%
1979	3267	+ 9.5%
1980	3704	+13.4%
1981	4013	+ 8.3%
1982	4417	+10.1%
	PROJECTED	
1983	4608	+ 4.3%
1984	4632	+ .5%
1985	4658	+ .6%
1986	4753	+ 2.0%
1987	4847	+ 2.0%

B. Out-of-County and Out-of State Residents as a Segment of the Total College Enrollment

Maryland Residents

Montgomery College students who are non-county residents are drawn primarily from the neighboring areas of Frederick, Howard and Prince George's Counties. Specialized programs, a large variety of course offerings, excellent faculty and facilities, and geographical proximity are some of the features which attract these students to Montgomery College. The College has become even more attractive with the renovation of Takoma Park campus and the completion of the campus at Germantown.

The most reliable base found for making projections of this segment has been the projections of twelfth grade enrollment in the public high schools in each of the neighboring counties. These projections are published by the State of Maryland Department of State Planning. Its most recent report was entitled Public School Enrollment Projections 1980-1988, issued November, 1980. About 90 percent of the out-of-county students are from the neighboring counties of Prince George's, Frederick and Howard. The College expects the enrollment rate for this segment to increase during the next two years and then level off and decline due to a lack of growth in the high schools in these counties.

TABLE II-10

ACTUAL AND PROJECTED MARYLAND RESIDENTS
ENROLLING AT MONTGOMERY COLLEGE

FALL	MARYLAND RESIDENTS	PERCENT CHANGE FROM PREVIOUS YEAR
	A C T U A L	
1973	327	- 8.7%
1974	326	- .3%
1975	308	- 5.5%
1976	275	-10.7%
1977	338	+22.9%
1978	378	+11.8%
1979	450	+19.0%
1980	596	+32.4%
1981	657	+10.2%
1982	740	+12.6%
	P R O J E C T E D	
1983	780	+ 5.4%
1984	805	+ 3.2%
1985	805	-
1986	750	- 6.8%
1987	750	-

Non-Residents

Out-of-state enrollment has two principal sources - District of Columbia residents and aliens holding student visas, although some students do come from Northern Virginia and other areas. Of the two sources, the aliens holding students visas constitute the larger number.

For projecting enrollments of these international students there is not a completely satisfactory data base. However, there appears to be a direct relationship between the size of the College, the extensiveness of its programs, and its attractiveness to the international student. Also, it can be assumed that most potential international students learn about Montgomery College through personal contact with other international students who are alumni or who are currently enrolled. Thus, growth of the student body appears to be the best available basis for projecting the number of international students. However, two forces have come into play which have tended to limit the number of out-of-state students. The U. S. Immigration and Naturalization Service has tightened the administration of regulations regarding aliens holding student visas from a number of countries, and at the same time tuition has been raised for non-residents. A number of other colleges in the metropolitan area have lower tuition. The full impact of these two forces had a serious effect on the enrollment of out-of-state students in the fall of 1975 and the spring of 1976. The result was a 16 percent drop from fall 1974 and a 13 percent drop from spring 1975. This decline reversed itself and the College experienced a 62% growth between fall 1975 and fall 1980; however, a loss of 17 percent in this category was experienced by the College in fall 1981. This loss was due primarily to the immigration law being strictly interpreted for a group of aliens holding student visas and a higher tuition rate. It also was due to the fact that the College has become more strict in adhering to its admissions standards regarding international students. This decline continued with a drop of seven percent in the out-of-state enrollment in fall 1982, but it is expected that this component of the College's total enrollment will stabilize at its current level for the next five years.

The data base for projecting the number of District residents enrolling at Montgomery College is the twelfth grade enrollment of District high schools. It is treated in the same way as the out-of-county enrollment segment. The combination of the results of projecting the non-resident enrollment using the two primary sources provides the figures in Table II-11.

TABLE II-11

ACTUAL AND PROJECTED NON-RESIDENTS
ENROLLING AT MONTGOMERY COLLEGE

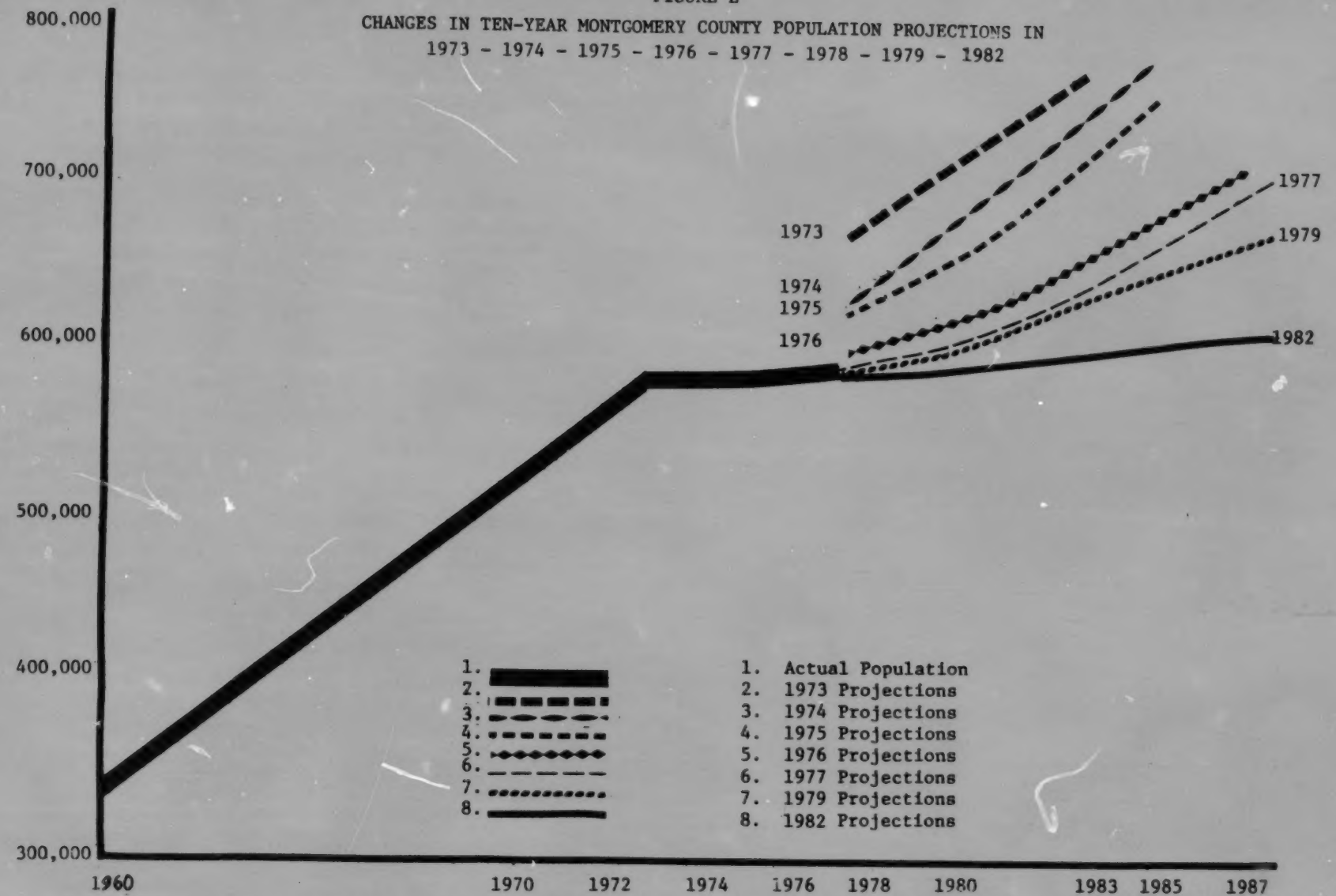
FALL	NON-RESIDENTS	PERCENT CHANGE FROM PREVIOUS YEAR
	A C T U A L	
1974	959	+ 1.2%
1975	804	-16.2%
1976	831	+ 3.4%
1977	981	+18.1%
1978	1132	+15.4%
1979	1235	+ 9.1%
1980	1303	+ 5.5%
1981	1083	-16.9%
1982	1005	- 7.2%
	P R O J E C T E D	
1983	1010	+ .5%
1984	1010	-
1985	1010	-
1986	1010	-
1987	1010	-

C. Off-Campus or Extension Credit Students as a Segment of the Total College Enrollment

The number of students participating in the off-campus or extension credit program of the College has depended on the program development efforts of the staffs of the Community Services unit and the off-campus programs offered by the Germantown, Rockville and the Takoma Park campuses. As new extension sites were established and centers opened, and as relevant course offerings were made available to the public by the Community Services unit, the number of students increased from 154 in the fall of 1971 to 839 in the fall of 1978. However, in the fall of 1979 responsibility for the Community Services off-campus credit programs was shifted to the campuses. As a result, there was a slight decline in total enrollment (Table II-12A). However, there was an increase of 23 percent in off-campus credit enrollment in fall 1980 over that of fall 1979. This rate increased to 43 percent in fall 1981 over fall 1980. The drop in total enrollment for fall 1982 is primarily the result of a reclassification of students on the Rockville Campus and the loss of one off-campus site for the Takoma Park off-campus program. The site has been replaced with a new location. The College expects that off-campus enrollment will grow moderately from the current enrollment level (Table II-12-B).

FIGURE E

CHANGES IN TEN-YEAR MONTGOMERY COUNTY POPULATION PROJECTIONS IN
1973 - 1974 - 1975 - 1976 - 1977 - 1978 - 1979 - 1982



1973 - Population and Household Growth Forecast 1973-1983, Montg. Cnty. Plng. Brd., p.41

1974 - Population, Household and Employment Growth Forecast 1974-1984, Montg. Cnty. Plng. Brd.,

1975 Fiscal Impact Analysis, Second Annual Growth Policy Report, 1974, Montg. Cnty Plng. Brd.,

1976 - Forecast for People, Jobs and Housing, Montgomery Cnty. Plng. Brd., Oct. 1976, p.38.

1977 - Carrying Capacity & Adequate Public Facilities, Montgomery Cnty. Plng. Brd., Oct. 1977, p. 2-5

1979 - Long Range Forecast: People, Jobs and Housing, Montgomery Cnty. Plng. Brd., Aug., 1979

1982 - Population Annual Growth Projected by Capital Park & Planning Comm., Sept. 82

TABLE II-12-A
ACTUAL OFF-CAMPUS OR EXTENSION CREDIT ENROLLMENT
1971-1979

Fall	Takoma Park Off-Campus Students	Takoma Park Off-Campus Percent Increase	TV College of the Air Students	TV College of the Air Percent Increase	Germantown Off-Campus Students	Germantown Off-Campus Percent Increase	Community Services Credit Courses Students	Community Services Credit Courses Percent Increase	Total Off-Campus Credit Enrollment Students	Total Off-Campus Credit Enrollment Percent Increase
1971							154	-	154	
1972							228	+48.1%	228	+48.1%
1973							356	+56.1%	356	+56.1%
1974							533	+49.7%	533	+49.7%
1975					(189)**		729	+36.8%	729	+36.8%
1976	96	-	(14)*		(266)**		632	-13.3%	728	- 0.1%
1977	121	+26.0%	(6)*		(464)**		639	+ 1.1%	760	+ 4.4%
1978	153	+26.4%	(2)*		91		595	- 6.9%	839	+10.4%
1979	204***	+33.3%	(28)*		136***		411***		751	-10.5%

* Included in Takoma Park Campus totals.
** Included in campus totals - Germantown opened in fall of 1978.
***Community Services off-campus credit programs distributed among the Takoma Park, Germantown, and Rockville off-campus programs.

TABLE II-12-B
ACTUAL AND PROJECTED COLLEGE OFF-CAMPUS OR EXTENSION CREDIT ENROLLMENT
1980-1987

Fall	GERMANTOWN Students	GERMANTOWN Increase	ROCKVILLE+ Students	ROCKVILLE+ Percent Change	TAKOMA PARK Students	TAKOMA PARK Percent Change	COLLEGE OF THE AIR Students	COLLEGE OF THE AIR Percent Change	TOTAL Students	TOTAL Percent Change
1980	145	+7.0%	508	+24.0%	274	+34.0%	(38)*	-	927	+23.0%
1981	184	+27.0%	574	+13.0%	569	+108.0%	(50)*	-	1327	+43.0%
1982	192	+4.3%	479	-16.6%	424	-25.5%	(50)*	-	1095	-17.5%
1983	190	-1%	525	+9.6%	525	+23.8%	(50)*	-	1240	+13.2%
1984	195	+2.6%	550	+4.8%	580	+10.5%	(50)*	-	1325	+ 6.9%
1985	200	+2.6%	570	+3.6%	635	+ 9.5%	(50)*	-	1405	+ 6.0%
1986	205	+2.5%	590	+3.5%	695	+ 9.4%	(50)*	-	1490	+ 6.0%
1987	210	+2.4%	600	+1.7%	755	+ 8.6%	(50)*	-	1565	+ 5.0%

* Enrollment in College of the Air programs included in Takoma Park Campus totals.
+ Weekend off-campus credit courses taught on the Rockville Campus are included in on-campus data as of FY '82.

CHAPTER III

SUMMARY OF ENROLLMENT SEGMENTS

When the projected number of students who are County high school graduates, Maryland residents, non-residents, returning students, older County residents, and persons enrolled at off-campus sites are aggregated, a projection of the total enrollment of the College is produced. Each segment's contribution to the total is independent of the others inasmuch as the data base and assumptions from which each is derived are independent. However, one should not lose sight of the original purpose of the projection model which is to estimate the total number of students enrolled and not the size of the separate segments. In the past, the overall projections have been quite accurate. However, the various segments have varied from expectations. Slight over-projections in one segment have offset under-projections in another, thus self-correcting the total.

Table III-1 is a composite of the values for each segment over the next five years, and Figure F illustrates the relationship of each segment to the total projection.

Table III-2 presents the anticipated growth rate from year to year resulting from the projection, and Table III-3 compares the projected enrollment of the College with the population projections of the Montgomery County Planning Board.

TABLE III-1

SIX-YEAR ACTUAL - FIVE-YEAR PROJECTIONS BY SOURCE SEGMENTS
FALL SEMESTERS

	ACTUAL						PROJECTIONS				
FALL	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
SOURCE SEGMENTS ON CAMPUS											
High School Graduates Early Placement; Delayed Entry Students	2666	2665	2845	2872	2437	2413	2437	2281	2203	2228	2235
Older County Residents	3073	2983	3267	3704	4013	4417	4608	4632	4658	4753	4847
Returning Students (County Residents)	7350	7392	7773	8313	9236	10296	11274	12025	12588	12981	13258
Maryland Residents (On-Campus)	338	378	450	596	657	740	780	805	805	750	750
Non-Residents (On-Campus)	981	1132	1235	1303	1083	1005	1010	1010	1010	1010	1010
SUB-TOTAL ON CAMPUS	14408	14550	15570	16788	17426	18871	20109	20753	21264	21722	21950
SUB-TOTAL OFF CAMPUS	760	839	751	927	1327	1095	1240	1325	1405	1490	1565
TOTAL ENROLLMENT	15168	15389	16321	17715	18753	19966	21349	22078	22669	23212	23515

TABLE III-2

ACTUAL AND PROJECTED TOTAL ENROLLMENT
AT MONTGOMERY COLLEGE

FALL	TOTAL COLLEGE ENROLLMENT	PERCENT CHANGE FROM PREVIOUS YEAR
	ACTUAL	
1972	10645	+11.6%
1973	11708	+10.0%
1974	12629	+ 7.9%
1975	13907	+10.1%
1976	13984	+ 0.5%
1977	15168	+ 8.5%
1978	15389	+ 1.5%
1979	16321	+ 6.1%
1980	17715	+ 8.5%
1981	18753	+ 5.9%
1982	19966	+ 6.5%
	PROJECTED	
1983	21349	+ 6.9%
1984	22078	+ 3.4%
1985	22669	+ 2.7%
1986	23212	+ 2.4%
1987	23515	+ 1.3%

FIGURE F

ENROLLMENT PROJECTIONS BY SOURCE SEGMENTS
FALL 1983-1987

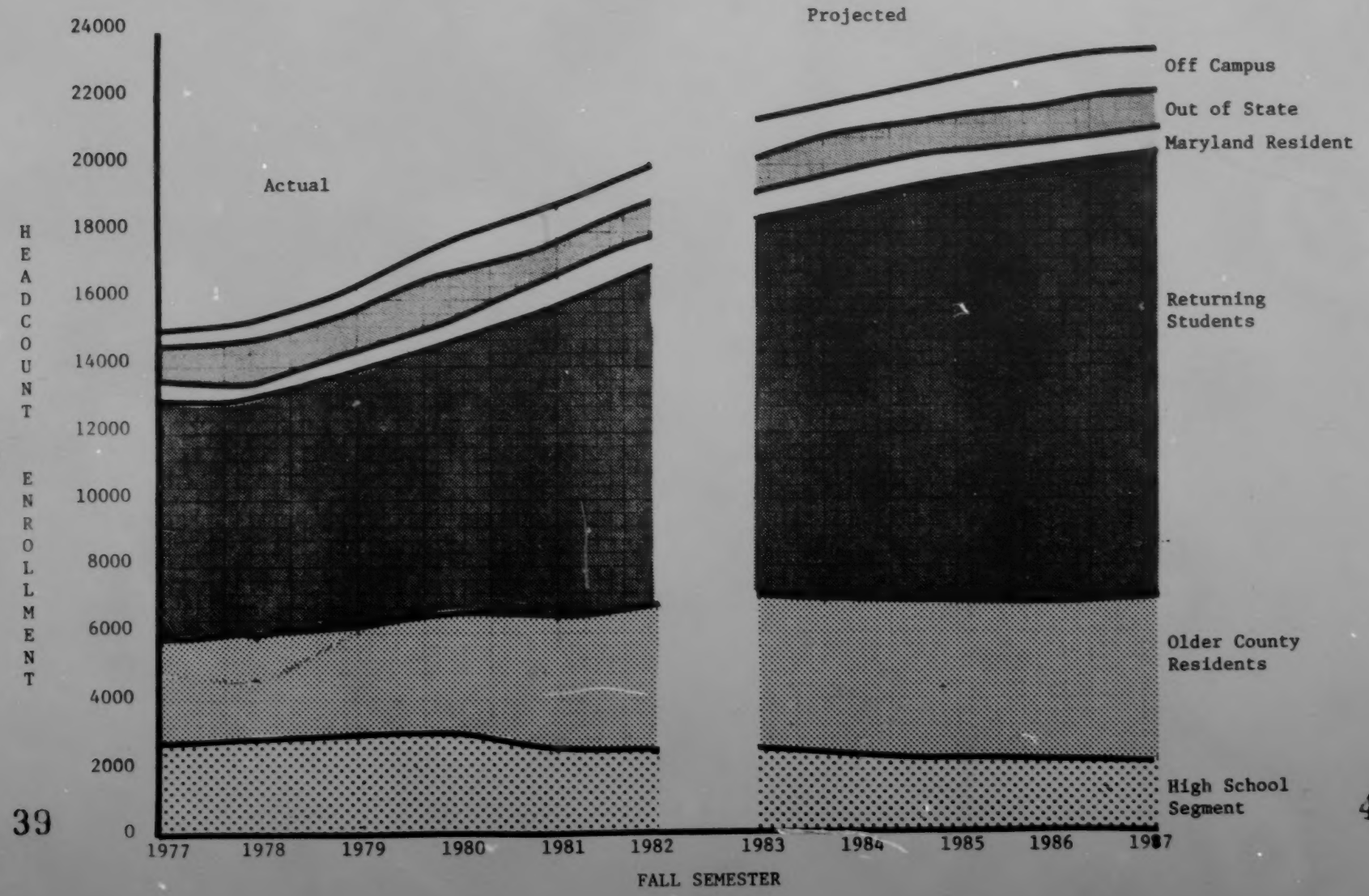


TABLE III-3

ACTUAL AND PROJECTED TOTAL ENROLLMENTS AS PERCENTAGES OF THE POPULATION OF MONTGOMERY COUNTY

FALL	MONTGOMERY COUNTY POPULATION	MONTGOMERY COLLEGE ENROLLMENT	MONTGOMERY COLLEGE TOTAL PERCENTAGE
		ACTUAL	
1954	239,800(A)	493(B)	0.20
1956	275,300(A)	731(B)	0.26
1958	300,300(A)	1,091(B)	0.36
1960	340,900(A)	1,564(B)	0.46
1962	371,200(A)	2,367(B)	0.64
1964	405,600(A)	2,780(B)	0.68
1966	445,100(A)	4,318(B)	0.97
1968	502,100(A)	5,879(B)	1.17
1970	522,809(C)	8,484(B)	1.62
1971	536,800(C)	9,535(B)	1.78
1972	547,200(C)	10,645(B)	1.95
1973	562,600(C)	11,708(B)	2.08
1974	578,100(C)	12,629(B)	2.18
1975	589,600(D)	13,907(B)	2.36
1976	582,800(D)	13,984(B)	2.40
1977	584,000(E)	15,168(B)	2.60
1978	593,500(E)	15,389(B)	2.59
1979	599,000(G)	16,321(B)	2.72
1980	579,053(H)	17,715(B)	3.06
1981	580,615(H)	18,753(B)	3.22
1982	582,210(H)	19,966(B)	3.43
		PROJECTIONS	
1983	583,810(H)	21,349(F)	3.66
1984	585,400(H)	22,078(F)	3.77
1985	587,000(H)	22,669(F)	3.86
1986	594,000(H)	23,212(F)	3.90
1987	601,000(H)	23,515(F)	3.91

A, B, C, D, E, F, G, H and I - for sources, see following page.

Sources:

A Factors Influencing Development of Montgomery County, the Maryland National Capital Park and Planning Commission, December 1969.

B Office of Institutional Research official enrollment figures.

C Population, Household, and Employment Growth Forecast 1974-1984, Montgomery County Planning Board, November 1974.

D Forecast: People, Jobs and Housing, Third Annual Growth Policy Report, Montgomery County Planning Board, October 1976.

E Long Range Forecast: People, Jobs and Housing, Montgomery County Planning Board, August 1982.

F Office of Institutional Research enrollment projections, November 1982.

G Interpolations and extrapolations based on figures for 1978, 1983 and 1988.

H Capital Park and Planning Commission and County Planning Board, September, 1982.

I Bureau of the Census, 1980 final count released to the Montgomery County Planning Board, June 1981.

CHAPTER IV

FISCAL YEAR CREDIT ENROLLMENTS BY CAMPUS, SEMESTER AND DAY/EVENING ATTENDANCE STATUS

An essential component to projecting revenues which are available to the College to support its programs is the development of credit hour projections. The most difficult aspect of projecting credit hours is arriving at a reasonable estimate of future average credit hour loads. The average credit hour load at Montgomery College has been declining steadily since 1970. Regression analysis of average credit hour load against time gives a very high correlation (r=.99), indicating a very linear decrease between 1970 and 1980.

As with the curve fitting methods described previously, this projection technique has the disadvantage of having time as the independent variable. Furthermore, in a reasonably short period of time the average credit hour load projection would approach 0, an impossible state of affairs as long as the College continues to offer courses. Because the decrease in average credit hour load has been associated with a massive influx of part-time students, a more reasonable approach to projecting credit hour load treats headcount as the independent variable. The relationship between headcount and average credit hour load is reliably linear (r=.99). This regression of load on headcount yields an equation which can be applied to projected headcount enrollments in order to derive projected credit hours. For instance, for a projected headcount of 19,000, the average credit hour load would be 7.92 and the projected credit hours would be 150,480. This second analysis provides a conceptually more satisfying approach to projecting credit hours. Thus, this regression method has been utilized in projecting credit hours.

Enrollment by Campus

Overall headcount and credit hour projections may be seen as yielding potential enrollments which must be distributed among the campuses and the off-campus credit programs. Campus projections are essential because almost all academic planning and staffing are done at the campus level. The best guides to distributing projected enrollments to the campuses are the history of enrollment growth at the campuses and our expectations of yield rates from various projection components. Planning decisions about program and facility development also must be taken into account when distributing enrollments by campus (Tables IV-1 to IV-5). Students at Montgomery College may attend any one of the College's campuses, and in some cases, students enroll for courses at more than one campus. This projection of student and credit hour enrollment for each campus is determined by the location where a student is taking most of his/her courses. Thus, the number of students attending each campus and the number of hours taught on each campus, and particularly the off-campus credit programs, may vary somewhat from than the numbers reflected in Tables IV-1 to IV-5.

Enrollment by Semester

Up to this point enrollment projections have been presented for the fall semester only. Enrollments for the spring semester and summer session are typically smaller than the fall enrollment and can be derived from the fall enrollment by regression analysis. Tables IV-1 to IV-5 present enrollments by semester for each campus and for the total College.

Day/Evening Enrollment

An essential component of the planning process is the breakdown of attendance patterns by day and evening. Accordingly, Table IV-6 presents credit enrollments by campus and day-evening attendance patterns. This table presents information concerning credit hour enrollments for fall semesters only since fall semesters generally represent the period of maximum facility utilization and maximum staffing requirements.

TABLE IV-1

CAMPUS ENROLLMENT PROJECTIONS

GERMANTOWN CAMPUS
ON CAMPUS

	ACTUAL			PROJECTED				
FISCAL YEAR	1981	1982	1983	1984	1985	1986	1987	1988
Students								
Summer*								
Fall	1779	2424	2369	2545	2795	3100	3300	3350
Spring*	1866	2325	2195+	2435	2650	2945	3135	3150
Total Students	3645	4443	4564	4980	5445	6045	6435	6500
Hours								
Summer*								
Fall	10299	13966	14485	15245	16345	17245	18295	18335
Spring*	10167	13300	12782+	13615	14455	15300	16270	16195
Total Hours	20466	25878	27267	28860	30800	32545	34565	34530

GERMANTOWN OFF-CAMPUS

Students								
Summer*			12					
Fall	145	184	192	190	195	200	205	210
Spring*	178	166	170+	170	175	185	195	200
Total Students	323	350	374	360	370	385	400	410
Hours								
Summer*			36					
Fall	471	573	647	650	660	675	690	710
Spring*	531	498	560+	510	525	555	585	600
Total Hours	1002	1071	1243	1160	1185	1230	1275	1310

* Includes supplemental enrollment.
+ Projected Enrollment.

TABLE IV-2

CAMPUS ENROLLMENT PROJECTIONS

ROCKVILLE CAMPUS
ON CAMPUS

	ACTUAL			PROJECTED				
FISCAL YEAR	1981	1982	1983	1984	1985	1986	1987	1988
Students								
Summer I***				4420				
Summer II*	3651	4060	4554	4820	5010	5160	5280	5370
Fall	11546	11570	12581	13274	13523	13689	13872	13960
Spring*	10771	11307	12260+	12715	12955	13020	13085	13090
Total Students	25968	26937	29395	35229	31488	31869	32237	32420
Hours								
Summer I***				16265				
Summer II*	13676	15243	16971	17730	18400	18925	19270	19450
Fall	102928	104041	107773	111525	112425	112975	113000	113415++
Spring*	94299	97858	101368+	104735	105750	106260	106280	106540++
Total Hours	210903	217142	226112	250255	231575	238160	238550	239405

ROCKVILLE OFF-CAMPUS**

Students								
Summer I***				280				
Summer II*	108	289	287	305	320	325	335	365
Fall	508	574	479	525	550	570	590	600
Spring*	465	334	450+	490	505	535	555	565
Total Students	1081	1197	1216	1600	1375	1430	1480	1530
Hours								
Summer I***				925				
Summer II*	330	977	944	1005	1050	1075	1105	1200
Fall	1649	1993	1693	1850	1945	2045	2135	2200
Spring*	1628	1259	1070+	1250	1310	1340	1380	1385
Total Hours	3607	4229	3707	5030	4305	4460	4620	4785

*Includes supplemental enrollment. Summer supplemental enrollment began being reported in fiscal year 1981.

**Beginning in fiscal 1983, weekend on-campus students are no longer included with the off-campus enrollments.

***Beginning in fiscal year 1984, there will be two summer sessions; Summer II classes will begin in July and Summer I classes will begin in May and June of that same fiscal year. Fiscal 1984 is the year of transition and has additional enrollments because of when the courses begin. All enrollments after fiscal 1984 are shown as Summer II regardless of when the courses begin.

+ Projected Enrollment.

++ It is projected that facilities will support a weekday enrollment of approximately 111,550 credit hours. Weekend enrollment is projected to approximate 2,000 credit hours per semester.

TABLE IV-3

CAMPUS ENROLLMENT PROJECTIONS

TAKOMA PARK CAMPUS
ON-CAMPUS

	ACTUAL			PROJECTED				
FISCAL YEAR	1981	1982	1983	1984	1985	1986	1987	1988
Students								
Summer I***				1220				
Summer II**	856	942	1307	1405	1465	1490	1515	1545
Fall	3463	3432	3921	4290	4435	4475	4550	4640
Spring**	3338	3375	3780+	4100	4235	4275	4345	4430
Total Students	7657	7749	9008	11015	10135	10240	10410	10615
Hours								
Summer I***				4565				
Summer II**	3364	3660	4903	5260	5350	5440	5560	5670
Fall	29230	28729	31893	33490	34490	35040	35965	36600++
Spring**	28819	27700	30750+	32290	33255	33780	34675	35290++
Total Hours	61413	60089	67546	75605	73095	74260	76200	77560

TAKOMA PARK OFF-CAMPUS

Students								
Summer I***				240				
Summer II**	107	186	220	275	300	325	355	380
Fall	274	569	424	525	580	635	695	755
Spring**	385	464	345+	430	475	515	565	605
Total Students	766	1219	989	1470	1355	1475	1615	1740
Hours								
Summer I***				642				
Summer II**	290	538	677	740	765	785	825	880
Fall	884	1969	1632	1910	2005	2140	2250	2430
Spring**	1312	1677	1390	1520	1570	1615	1700	1815
Total Hours	2486	4184	3699	4812	4340	4540	4775	5125

*Includes 50 students and 150 credit hours enrolled in College of the Air.

**Includes supplemental enrollment. Summer supplemental enrollment began in fiscal 1981.

***Beginning in fiscal year 1984, there will be two summer sessions; Summer II classes will begin in July and Summer I classes will begin in May and June of that same fiscal year. Fiscal 1984 is the year of transition and has additional enrollments because of when the courses begin. All enrollments after fiscal 1984 are shown as Summer II regardless of when the courses begin.

+Projected Enrollment.

++It is projected that facilities will support a weekday enrollment of 36,600 credit hours.

TABLE IV-4

TOTAL ON-CAMPUS COLLEGE ENROLLMENT PROJECTIONS

	ACTUAL			PROJECTED				
FISCAL YEAR	1981	1982	1983	1984	1985	1986	1987	1988
Students								
Summer I***				5640				
Summer II*	4507	5002	5861	6225	6475	6650	6795	6915
Fall	16788	17426	18871	20109	20753	21264	21722	21950
Spring*	15975	16701	18235+	19250	19840	20240	20565	20670
Total Students	37270	39129	42967	51224	47068	48154	49082	49535
Hours								
Summer I***				20830				
Summer II*	17040	18903	21874	22990	23750	24365	24830	25120
Fall	142457	146736	154151	160260	163260	165260	167260	168350
Spring*	133285	137470	144900+	150640	153460	155340	157225	158025
Total Hours	292782	303109	320925	354720	340470	344965	349315	351495

TOTAL OFF-CAMPUS COLLEGE ENROLLMENT PROJECTIONS**

Students								
Summer I***				520				
Summer II*	215	475	519	580	620	650	690	745
Fall	927	1327	1095	1240	1325	1405	1490	1565
Spring*	1028	964	965+	1090	1155	1235	1315	1370
Total Students	2170	2766	2579	3430	3100	3290	3495	3680
Hours								
Summer I***				1567				
Summer II*	620	1515	1657	1745	1815	1860	1930	2080
Fall	3004	4535	3972	4410	4610	4860	5075	5340
Spring*	3471	3434	3020+	3280	3405	3510	3665	3800
Total Hours	7095	9484	8649	11002	9830	10230	10670	11220

*Includes supplemental enrollment. Summer supplemental enrollment began being reported in fiscal year 1982.

**Beginning in fiscal 1983, weekend on-campus courses for all campuses will not be included with off-campus enrollments. Previously, Rockville students enrolled in these courses were included in the off-campus category.

***Beginning in fiscal year 1984, there will be two summer sessions; Summer II classes will begin in July and Summer I classes will begin in May and June of that same fiscal year. Fiscal 1984 is the year of transition and has additional enrollments after fiscal 1984 are shown as Summer II regardless of when the courses begin.

+Projected Enrollment.

TABLE IV-5

OVERALL COLLEGE ENROLLMENT PROJECTIONS

	ACTUAL			PROJECTED				
FISCAL YEAR	1981	1982	1983	1984	1985	1986	1987	1988
Students								
Summer I**				6160				
Summer II*	4722	5477	6380	6805	7095	7300	7485	7660
Fall	17715	18753	19966	21349	22078	22669	23212	23515
Spring*	17003	17665	19200+	20340	20995	21475	21880	22040
Total Students	39440	41995	45546	54654	50168	51444	51577	53215
Hours								
Summer I**				22397				
Summer II*	17660	20418	23531	24735	25565	26225	26760	27200
Fall	145461	151271	158123	164670	167870	170120	172335	173690
Spring*	136756	141461	147920+	153920	156865	158850	160890	161825
Total Hours	299877	312593	329574	365722	350300	355195	359985	362715

*Includes supplemental enrollment. Summer supplemental enrollment began in fiscal 1982.

**Beginning in fiscal year 1984, there will be two summer sessions; summer II classes will begin in May and June of that same fiscal year. Fiscal 1984 is the year of transition and has additional enrollments because of when the courses begin. All enrollments after fiscal 1984 are shown as Summer II regardless of when the courses begin.

+Projected Enrollment.

TABLE IV-6

PROJECTED ENROLLMENT BY DAY AND EVENING
ATTENDANCE STATUS*

		ACTUAL			PROJECTED				
FISCAL YEAR		1981	1982	1983	1984	1985	1986	1987	1988
Fall Semester Credit Hours									
Day	#	6437	8859	9481	10235	11335	12235	13285	13325
Germantown	%	62%	62%	65%	67%	69%	71%	73%	73%
Campus	#	4032	5358	5009	5010	5010	5010	5010	5010
Eve	%	38%	38%	35%	33%	31%	29%	27%	27%
Day	#	420	570	675	650	660	675	690	710
Germantown	%	78%	89%	100%	100%	100%	100%	100%	100%
Off-Campus	#	122	72	0	0	0	0	0	0
Eve	%	22%	11%	0%	0%	0%	0%	0%	0%
Day	#	84988	83865	86775	90335	91064	91510	91530	91866
Rockville	%	83%	82%	81%	81%	81%	81%	81%	81%
Campus	#	17106	18005	20490	21190	21361	21465	21470	21549
Eve	%	17%	18%	19%	19%	19%	19%	19%	19%
Day	#	734	1598	413	389	408	429	448	462
Rockville	%	34%	54%	21%	21%	21%	21%	21%	21%
Off-Campus	#	1434	1355	1562	1461	1537	1616	1687	1738
Eve	%	66%	46%	79%	79%	79%	79%	79%	79%
Day	#	23731	23446	26338	27797	28627	29083	29851	30378
Takoma Park	%	82%	83%	83%	83%	83%	83%	83%	83%
Campus**	#	5323	4711	5504	5693	5863	5957	6114	6222
Eve	%	18%	17%	17%	17%	17%	17%	17%	17%
Day	#	316	483	320	325	341	364	383	413
Takoma Park	%	28%	20%	17%	17%	17%	17%	17%	17%
Off-Campus	#	818	1970	1556	1585	1664	1776	1867	2017
Eve	%	72%	80%	83%	83%	83%	83%	83%	83%
Day	#	116626	118821	124002	129731	132435	134296	136187	137154
TOTAL	%	80%	79%	78%	79%	79%	79%	79%	79%
COLLEGE	#	28835	31421	34121	34939	35435	35824	36148	36536
Eve	%	20%	21%	22%	21%	21%	21%	21%	21%
GRAND TOTAL		145461	979+ 151271	158123	164670	167870	170120	172335	173690

* Actual credit hours taken on a particular campus are not exactly equal to those given in other distributions by campus due to students taking courses at more than one location. In general, off-campus totals in this table are higher than those shown on other tables.

**Includes College of the Air.

+ In fall 1981, the College started classes on two different dates, August 31 and September 8. For certain reports, including this one, the College's data system could work only from the data of one date. This situation has prevented the allocation of 979 credits (.6%) within the appropriate Day/Evening categories.

CHAPTER V

ENROLLMENT BY FULL-TIME AND PART-TIME STATUS

Table V provides the collegewide estimated number of students who can be expected to enroll on campus in 12 or more credit hours or 11 or fewer credit hours. It also presents those students who will be enrolled in classes at extension centers during the summer, fall and spring of Fiscal Year 1984.

TABLE V-1

ENROLLMENT PROJECTIONS
FISCAL YEAR 1984
COLLEGE CREDIT PROGRAMS
TOTAL COLLEGE

	TOTAL ON-CAMPUS				OFF-CAMPUS		TOTAL COLLEGE			
Semester	12 Hrs. Or More	11 Hrs. or Less	Total	FTE	11 Hrs. or Less	FTE	12 Hrs. Or More.	11 Hrs. or Less	Total	FTE
Summer I										
Headcount	-	5640	5640		520		-	6160	6160	
Credit Hrs.	-	20830	20830	694	1567	52	-	22397	22397	746
Summer II										
Headcount	-	6225	6225		580			6805	6805	
Credit Hrs.	-	22990	22990	767	1745	58		24735	24735	825
Fall 1983										
Headcount	6639	13470	20109		1240		6639	14710	21349	
Credit Hrs.	90705	69555	160260	5342	4410	147	90705	73965	164670	5489
Spring 1984										
Headcount	6434	12816	19250		1090		6434	13906	20340	
Credit Hrs.	85982	64658	150640	5021	3280	110	85982	67938	153920	5131
Total Fiscal Year										
Credit Hrs.			354720	11824	11002	367			365722	12191

CHAPTER VI

NON-CREDIT ENROLLMENTS

The Montgomery College Community Services program includes a wide variety of project activities and services in support of the mission of the College.

Throughout the fourteen year history of the program, Community Services has been concerned with the development of on and off-campus non-credit short courses for the community.

The activities of the staff of Community Services to provide educational experiences in a non-credit or short-course format are demonstrated most clearly by the enrollments in course activities, the variety of courses offered, and the numerous locations used in the overall program.

The Community Services' program was established in the summer of 1967. The developments from that time in the growth of the number of courses, number of locations, and the overall enrollments over the next twelve years have been dramatic (Table VI-1).

From one real estate course in 1967, a complete array of 17 courses in real estate continuing education has evolved. In addition, other career-related and vocational courses have been offered in graphic arts, a variety of health care fields to help individuals in the professions to gain new skills and refresh other skills, secretarial, small business management, and in apprenticeship programs for maintenance and machine tools, and building trades. Of particular note is the cooperative effort with the American Heart Association to conduct CPR courses, and the selection of the College's Community Services program to conduct Extension Institute programs for the American Management Association.

Courses of more general interest have also been developed and range from art, photography, and home-related courses to personal finance, home computers, development, and relating to others, etc. Courses in the unit are conducted in response to community needs and interests as evidenced by inquiries and survey responses.

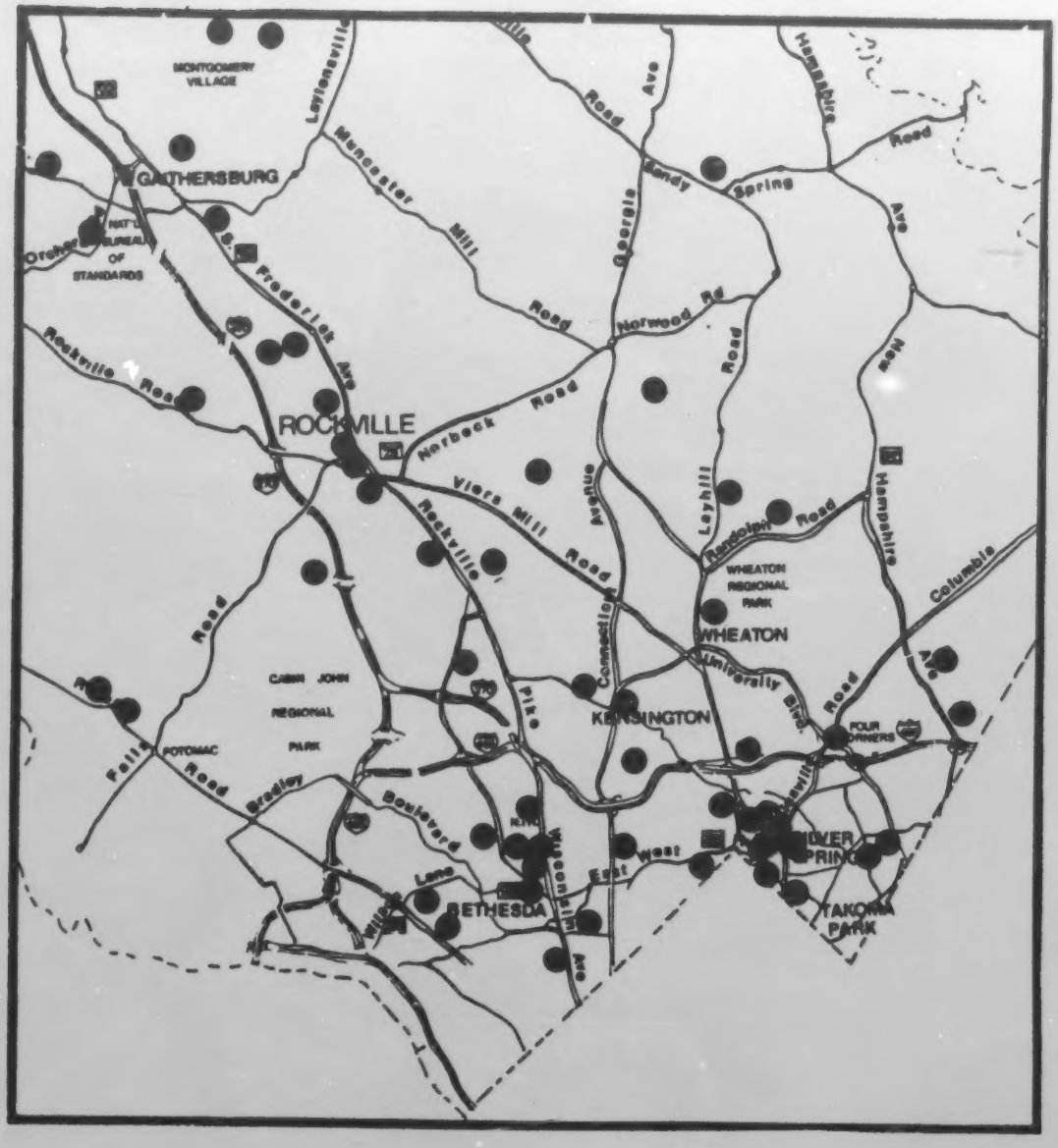
Program sites shift in response to community interest, availability, and unique attributes appropriate to the scheduled courses. Figure G shows the 66 locations that were used one or more times throughout the period July 1981 to June 1982 as a location for courses.

Initially, programming of non-credit courses was cycled in two or three time periods a year. As the program grew, four fixed terms per year were established (fall, winter, spring, summer) with most of the courses beginning in the first two weeks of each of these terms. The program in the last five years has expanded and activities and courses have been conducted under different patterns. Programs, while still concentrated in the four terms noted above, were initiated on many dates throughout the year. During fiscal year 1982 one or more courses serving 15 or more persons was initiated on 220 different days of the year. Programming schedules for fiscal year 1982-83 indicate that a

FIGURE G

LOCATIONS OF COMMUNITY SERVICES NON-CREDIT COURSES

1981 - 1982



similar level of beginning dates also will occur. This flexible approach to serving the community has brought about an almost continuous programming and registration activity in the Community Services Office.

The projections presented in Table VI-2 and Figure H are based on historical trends in the growth of the non-credit program and expectations for future growth in this educational sector. During coming years, Community Services expects to undergo further expansion into new areas of the County as it begins to use new sites in support of CPR and other special training activities.

TABLE VI-1

COMMUNITY SERVICES COURSES, ENROLLMENTS AND LOCATIONS
FY 1969 - 1982

YEAR	COURSES/SECTIONS	ENROLLMENT*	LOCATIONS
1969	33	1,003	1
1970	38	1,461	4
1971	122	3,966	7
1972	180	6,849	13
1973	291	9,006	20
1974	413	8,395	27
1975	437	8,409	30
1976	551	10,531	54
1977	648	11,566	37
1978	652	11,520	34
1979	689	12,187	40
1980	723	13,817	44
1981	807	13,701	57
1982	1029	15,440	66

* Enrollment figures are as of course count dates. Additional students have registered after these dates. In fiscal 1981 and 1982 total enrollment was actually 14,530 and 16,225 respectively.

TABLE VI-2

NON-CREDIT COMMUNITY SERVICES

HEADCOUNT AND FULL-TIME EQUIVALENT STUDENTS* IN EQUATED-CREDIT COURSES

ACTUAL EIGHT YEARS - PROJECTED SIX YEARS++

		FULL-TIME EQUIVALENT STUDENTS RESIDENCE									
		TOTAL IN STATE			MONTGOMERY COUNTY			STATE			NON-RESIDENT
Fiscal Year	Total+ Headcount Enrollment	Total FTE	Funded	Non-Funded	Total FTE	Funded	Non-Funded	Total FTE	Funded	Non-Funded	Total FTE	FTE Non-Funded
1975	8,409	400	299	86	385	280	83	363	19	3	22	15
1976	10,531	476	348	108	456	327	105	432	21	3	24	20
1977	11,566	633	474	130	604	440	127	567	34	3	37	29
1978	11,520	627	433	155	588	403	151	554	30	4	34	39
1979	12,187	678	508	125	633	466	121	587	42	4	46	45
1980	13,817	728	555	128	683	511	123	634	44	5	49	45
1981	13,701	715	535	129	664	477	124	601	58	5	63	51
1982	15,440	794	602	139	741	536	131	667	66	8	74	53
					P R O J E C T E D							
1983	16,850	858	644	149	793	573	140	713	71	9	80	65
1984	19,662	1020	767	177	944	682	167	849	84	11	95	76
1985	20,623	1073	808	187	995	719	176	895	89	11	100	78
1986	21,755	1,130	848	194	1,042	746	182	928	92	12	104	88
1987	22,705	1,180	888	202	1,090	777	190	967	97	12	109	90
1988	23,885	1,237	928	211	1,139	813	199	1,012	100	13	113	98

* One FTE is equal to 30 equated credit hours of instruction.

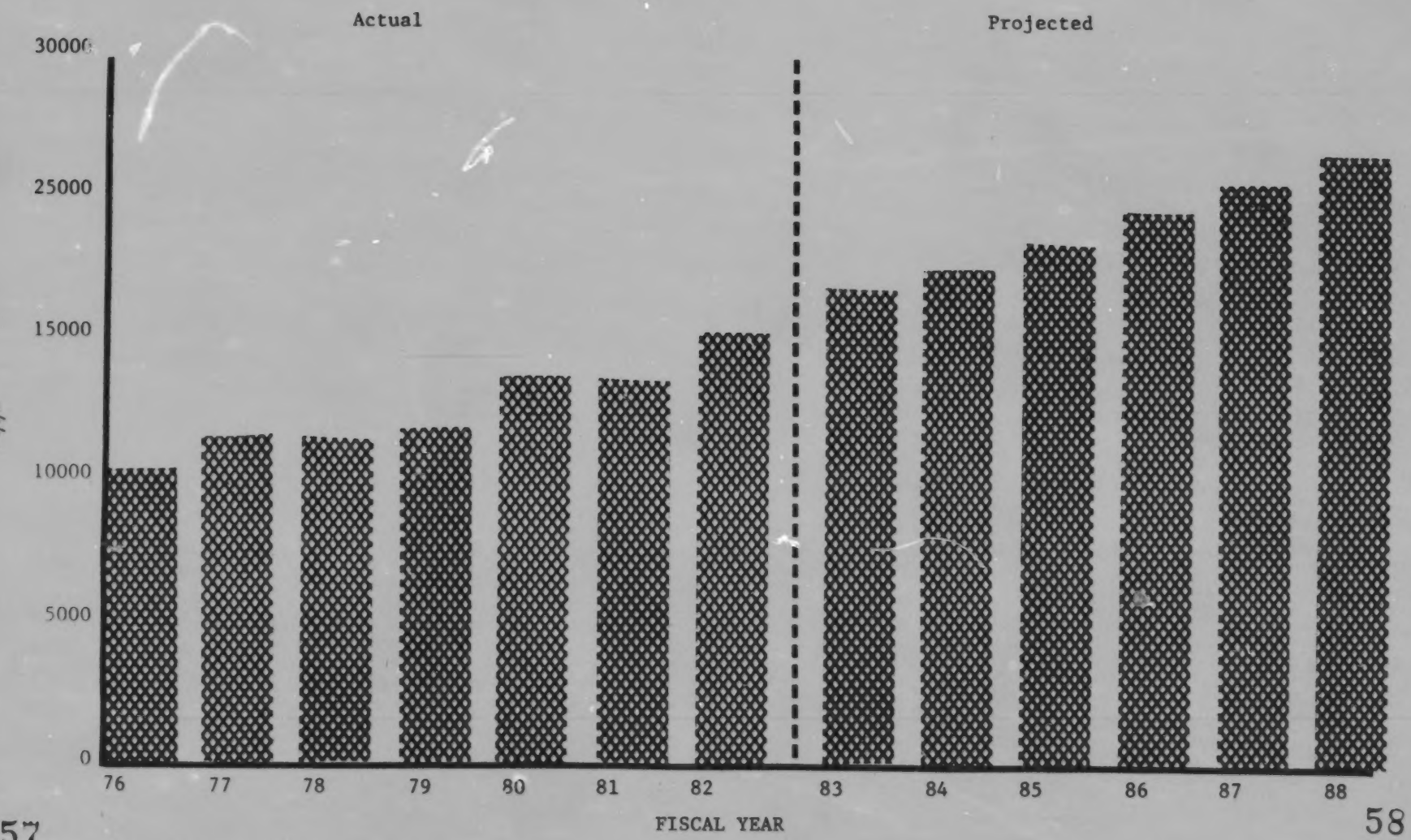
+ Enrollment figures are as of course count dates. Approximately 800 additional students are forecasted to register after the course count date each year for fiscal 1983 to 1988.

++Enrollment is for the high series projection.

FIGURE H

ACTUAL AND PROJECTED STUDENTS

IN EQUATED CREDIT COURSES



CHAPTER VII

SUMMARY OF FISCAL YEAR FTE ENROLLMENTS
CREDIT AND NON-CREDIT COMBINED

College revenues are calculated primarily on the basis of Full-Time Equivalent Students (FTES). Table VII presents the projected FTES for Montgomery College for the next five years.

TABLE VII

TOTAL FULL-TIME EQUIVALENT STUDENTS
FY 1977 - FY 1988*

FISCAL YEAR	ACTUAL 1977	1978	1979	1980	1981	1982	1983	PROJECTED 1984	1985	1986	1987	1988
Credit												
State funded	8159	8280	8079	8468	8924	9595	10247**	11444+	10960	11112	11265	11349
Non-funded	723	843	975	1142	1072	836	739**	747+	717	728	735	742
TOTAL	8882	9123	9054	9610	9996	10431	10986**	12191+	11677	11840	12000	12091
Non-Credit												
State funded	474	433	508	555	535	602	644**	767	808	848	888	928
Non-funded	159	194	170	173	180	192	214**	253	265	282	292	309
TOTAL	633	627	678	728	715	794	858**	1020	1073	1130	1180	1237
Overall												
State funded	8633	8713	8587	9023	9459	10197	10891	12211+	11768	11960	12153	12277
Non-funded	882	1037	1145	1315	1252	1028	953	1000	982	1010	1027	1051
TOTAL	9515	9750	9732	10338	10711	11225	11844	13211	12750	12970	13180	13328

* FTES = 30 credit or equated credit hours of instruction.
**Includes estimate for the spring semester.
+ Beginning in fiscal year 1984, the College will offer two summer sessions; Summer II classes will begin in July and Summer I classes will begin next May and June. Fiscal 1984 is the year of transition and has additional enrollments because of when the courses will begin.

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